



Farm King's new "Propeller series" snowblower comes with aggressive propeller blades mounted on a paddle-style auger to cut through hard-packed snow.

## "Paddle" Snowblower Cuts Through Hard-Packed Snow

We spotted Farm King's new Propeller Series 3-pt. mounted snowblower this fall at the Ohio Farm Science Review show.

What sets the snowblower apart is its aggressive new propeller blades mounted on a paddle-style auger. According to the company, the design maximizes performance in extreme conditions with heavy, packed and wet snow. The rapid rotation of the auger with the propeller blades is said to break

down larger pieces of snow as it enters the machine and moves toward the fan, providing a smoother flow of snow into the fan.

Propeller Series snowblowers are available in cutting widths from 50 to 120 in. and cutting heights from 24 to 41 in.

Contact: FARM SHOW Followup, Farm King, 1260 Clarence Ave., Winnipeg, Manitoba, Canada R3T 1T2 (info@buhler.com; www.farm-king.com)

Instead of a horizontal auger feeding snow to the blower, Snowblast snowblower uses 2 sets of fan blades that bore into snow and blast it out the chute.



## Skidsteer Snowblower Blasts Through Drifts

Snowblast snowblowers live up to their name, blasting through drifts and snow banks easily thanks to their unique design. Instead of a horizontal auger feeding snow to the blower, it has 2 sets of fan blades that bore into the snow and blast it out the chute.

"The twin fan blades act like an auger pulling snow in," says Myron Holzwarth, Teamco, Inc. "The cups on front of the fans, combined with their 6 blades, produce a smooth-running operation with less pounding as snow hits the chute."

The Snowblast design is not new. In fact, it has been around since the 1970's as a commercial grade snowblower. What is new are the smaller size models that are available with hydraulic drive on a skid-steer or wheel loader as small as 30 hp. They are also available with a 3-pt. hitch, pto drive for tractors as small as 35 to 40 hp.

"Models range from 42 in. to 74 in.," says Holzwarth. "Hydraulic-powered units range from \$7,000 to \$12,000, depending on options. The pto versions run about \$2,500 less."

Skid steer or wheel loaders should have high-flow pumps. Tractors should have a Cat. II 3-pt. hitch.

Switching from hydraulic to pto drive is

a matter of removing the skid-steer loader plate, removing the hydraulic pump, and inserting a 540-rpm pto shaft.

"The Snowblast is simple, durable and aggressive," says Holzwarth. "When the irregular cutting edge hits hard packed snow, the points wedge in and pop the snow up."

The simplicity of the design eliminates drive clutter to either side of the cutting face shell. The direct chain drive (no gearbox) is completely enclosed in an oil bath behind the fans. Cutting blade fans are mounted on heavy-duty shafts and bearings.

"The sides are like a knife cutting into the snow bank," says Holzwarth.

He notes that with standard snowblowers, as you drive into the snow, the snow pushes against the auger. With the Snowblast, the snow moves straight into the fan and only makes one turn up the chute.

"The Snowblast has unbelievable capacity," says Holzwarth. "As you drive forward, it is like you are corkscrewing into the snow you are blowing."

Contact: FARM SHOW Followup, Teamco Inc., 27065 Kerslake Pl., Tea, S. Dak. 57064 (ph 605 498-0610; teamco@teamco-inc.com; www.teamco-inc.com).



Mitas PneuTrac tire looks like it's flat, but rides smoother than conventional tires in rough field conditions, says the company.

## Mitas Tire Mimics A Track

Tires that look like they're running flat but aren't really turned farmer's heads at the 2015 Farm Progress Show in Illinois. That's where the Mitas PneuTrac made its working debut on a Case IH Maxxum tractor. PneuTrac 28-in. tires were mounted on the front with 38-in. PneuTracs on the rear.

A driving demonstration paired the PneuTrac tractor with a conventionally-equipped tractor, rolling over obstacles in the field. The driver of the PneuTrac tractor barely noticed a bump while the conventional tire driver bounced inside the cab.

Company spokesperson Dan Kirkpatrick says the simple test really showed the ride smoothing capabilities of PneuTrac in rough field conditions.

PneuTrac tires improve productivity and operator comfort at the same time, says Avishay Novaplanski of Galileo Wheel, Ltd., the Israeli company that invented the concept. He adds that a smooth ride is imperative for

operators who spend long hours in the field in rough conditions. The smoother ride may also reduce wear on the machines, he says.

Two PneuTrac sizes are undergoing extensive field testing in Europe: 280/70 R18 and 600/65 R38. The company says when the product is released for sale – hopefully in 2016 – that it will produce the new tires in its Charles City, Iowa plant.

The footprint of a PneuTrac is 53 percent larger than a standard pneumatic tire and it provides higher tractive force. Better pressure distribution lowers ground pressure. Lateral stability is rated 167 percent higher than standard tires. PneuTrac tires mount on standard rims.

Contact: FARM SHOW Followup, Mitas Tires North America, 7400 Carmel Executive Park, Suite 100, Charlotte, North Carolina 28226 (ph 704 542-3422; www.mitasag.com; info@mitas-tires.com).

## Tweel Tires Gain Market Traction

The innovative Tweel airless tire introduced by Michelin in 2005 is slowly gaining market traction. Even though 10 years is an eternity for product roll out, it doesn't seem to be the case with this idea. Tweels are now being used on skid steer loaders, zero-turn mowers and some industrial loaders. The company thinks Tweels will also be used on other vehicles like golf carts. Tweel replaces 23 components of a normal radial tire with a simple design.

The Tweel uses a solid inner hub mounted to the vehicle, surrounded by polyurethane spokes assembled in wedge patterns. A shear band circles the spokes and produces the surface that meets the ground. Different types of treads attach to the shear band.

Tweels are made with different spoke tension that allow different handling characteristics. Some are flexible for a softer ride and easier handling while others are more sturdy for extra strength during rugged jobs.

Michelin says the Tweel rolls just like a pneumatic tire and absorbs shock well. In late 2014 Michelin announced plans for a \$50 million, 135,000 sq. ft. production plant in Piedmont, South Carolina that will build Tweels for commercial and agricultural application.

Deere uses X Tweels on its Z Trak series mowers. Chase Tew, manager of commercial mowing at Deere, says the X Tweel is built to last 3 times longer than a conventional pneumatic tire. It's puncture resistant and doesn't require maintenance.

A Tweel for a front-end loader costs about \$1,200 compared to pneumatic tires for



Tweel airless tire uses a solid inner hub surrounded by polyurethane spokes assembled in wedge patterns.

\$200 to \$800. Deere mowers equipped with Tweels cost about \$750 more than the same model with regular tires.

Commercial operators who've used Tweel clad mowers say the ride is excellent because the Tweel absorbs bumps better than air-filled tires. The full-width spokes provide excellent cutting height control and outstanding lateral support for sidehill mowing.

Michelin says a Tweel will last nearly 3 times longer than a conventional tire. Tread can be replaced without having to replace the spokes and hub. The company is focusing initial production on commercial and agricultural applications because those industries suffer significant downtime from punctured tires.

Contact: FARM SHOW Followup, Michelin Tire, Piedmont, S. Car. (www.michelintweel.com).